

REMARKS

Claims 1-17 have been canceled. Claims 18-37 are presented for examination and Applicants have amended claims 18, 30 and 37. The Examiner has rejected claims 18 - 37. In view of the foregoing amendments and arguments, Applicants respectfully request reconsideration and allowance of the pending claims.

Response to Rejections Under §103(a):

The Examiner has rejected claims 18, 23-25, 28-35 and 37 under 35 U.S.C. §103(a) as being obvious over Twerdochlib et al. in view of Gray (USPN 4,131,889).

Applicants have amended claims 18, 30 and 37 to include the limitation of matching the electromagnetic emission wave to a surface form of the blade or vane. Applicants respectfully submit that the cited prior art does not disclose or suggest this limitation, which is similar to that of rejected dependant claim 21. In the outstanding Final Office Action regarding claim 21, the Examiner contended that Twerdochlib et al. disclosed having a wavelength based on a shape of the reflection surface. (Col. 5, lines 37-45). However, the cited portion of Twerdochlib et al. discloses the use of high resolution hardware to detect “very small changes that occur when a blade starts to crack at its root” (Col. 5, lines 37-45) – not a wavelength based on a shape of the reflection surface as stated by the Examiner.

A patentable difference exists between the teaching of Twerdochlib et al. and the above limitation that is, Twerdochlib et al. is using a high sampling frequency to provide narrow spectral resolution to detect “very small changes” in a blade frequency response. Twerdochlib et al. makes no mention of matching an electromagnetic emission wave to a surface form. Applicants respectfully submit that amended independent claims 18, 30 and 37 are patentable over the prior art and therefore should be allowed.

In view of the above, Applicants respectfully contend that the combination of Twerdochlib et al. and Grey does not anticipate Applicants claimed invention as embodied in independent claims 18, 30 and 37. Dependant claims 19-22, 25-27, 34 and 36 are also patentable based on their dependency from independent claims 18 and 30 as well as on their own merit. For example claim 21 recites that the matched electromagnetic emission wave comprises a wavelength based on a shape of the reflection surface. In view of the above, Applicants respectfully request reconsideration and allowance of claims 18 - 37.

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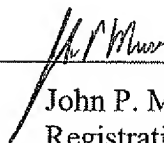
**Conclusion**

For the forgoing reasons, it is respectfully submitted that the rejections submitted in the outstanding Office Action are inapplicable to the present claims.

The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including the fees specified in 37 C.F.R. §§ 1.16 (c), 1.17(a)(1) and 1.20(d), or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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